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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,023	09/12/2003	Robert W. Yoho SR.	YD05/05	6808

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EXAMINER

FORD, JOHN K

ART UNIT	PAPER NUMBER
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3753

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/661,023

Applicant(s)

YOHO, ROBERT W.

Examiner

John K. Ford

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/3/05
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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Applicant's response of June 3, 2005 has been carefully considered. A few reference numerals have been added to drawing Figures 1, 16 and 18 to show obvious features such as the ceiling walls and floor of the room and a few details of the heat exchanger box 20. In so far as they go, they are approved and do not contain new matter. It is noted however than none of Figures 2-15 and 19 have been amended or explained.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

There does not appear to be any original disclosure to support the new limitation that the "thermal exchange unit" (originally claimed) is a "total energy heat exchanger, enthalpy exchanger" (newly claimed). There is nothing in the original specification, claims or drawings to support this limitation. In fact, the examiner is unsure of precisely what this is.

Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not

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described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicant's disclosure is incomprehensible because none of the drawing figures 1-17 contain reference numerals that are necessary to understand the disclosure, even with the few added reference numerals added to drawing Figures 1, 16 and 18 to show obvious features such as the ceiling walls and floor of the room and a few details of the heat exchanger box 20.

The heating water circuit and the cooling water circuit are not adequately explained to permit meaningful examination to take place or for one of ordinary skill to construct the device. Applicant is now claiming "a cooling tower with an electrically cooled cold water source", presumably referring to the cooling tower 33 shown in Figure 1. Turning to page 14 of the specification, a cooling tower is mentioned in "an alternate embodiment", but it is entirely unclear from that description how the cooling tower is connected to the cold water source or to the fire sprinkler system, if at all. Exacerbating the problem is the fact that Figures 1 and 10 do not appear to show in any way what the flows through, or connections between, the electrically cooled cold water source, the heat exchanger (either the total energy heat exchanger or the heat exchange units, the examiner is unsure which is being referred to) and the cooling tower and the fire sprinkler system piping actually are. It is impossible to understand how the claimed system is plumbed together (i.e. the electrically cooled cold water source heat exchanger and the cooling tower and the fire sprinkler system piping and the total

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energy heat exchanger or the heat exchange units). Since this cannot be understood, the Examiner is in no position to properly search the claimed subject matter.

Avoid any new matter in responding to this rejection.

Adding reference numerals, on the order of a hundred or more, constitutes "new matter" at this juncture, unless applicant can show that one of ordinary skill would, necessarily, be able to uniquely associate each reference numerals with a particular piece of disclosed structure in the drawing Figures.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what heat exchanger is being referred to in the recitations "hot water source coupled to the heat exchanger" and "a cooling tower with an electrically cooled cold water source coupled to the heat exchanger." Are these recitations referring to the total energy heat exchanger or some unclaimed heat exchanger in the heat exchange units.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Meckler (USP 4,815,527) and JP 57-62333.

Meckler discloses in Figure 1 a building with four living spaces, each receiving air from a system of supply ducts 38 having dampers 39 controlled by individual thermostats 39' (shown in Figure 4) for each living space. A water source heat pump P2 is shown above the room but is not explicitly disclosed to be roof mounted. As shown in Figure 4, the device P2 has a plurality of heat exchangers (A1 and R). In Figure 8 three heat exchangers are shown. A fan F driven by an electric motor is shown in Figures 4 and 8. In Figure 3 a cooling tower is shown at 31, which is connected by piping and valves to a plurality of air conditioning units P2. An electrically cooled water source 21 is connected to the cooling tower 31 and a fire sprinkler system 40 by piping 16 and a pipe connected between pipe 16 and condenser 28. Numerous valves are connected to the hot and cold pipes in Figure 3.

Lacking in Meckler is an explicit showing of unit P2 being mounted on a roof and the conventional supply ducts, return ducts and registers in the building. JP 57-62333 shows a roof mounted heat pump with a total heat exchanger 7 in it. To have formed the heat pump units P2 of Meckler as roof-mounted combined heat recovery heat pump units as taught by JP 57-62333 to improve occupant comfort by giving them fresh air and avoiding excessive energy consumption by recovering heat and moisture from the exhaust air using a total heat exchanger would have been obvious to one of ordinary skill in the art. Roof mounting would have been obvious from JP 57-62333 to ease servicing and avoid taking up valuable building space.

Registers at the ends of supply and return ducts are conventional and required by building codes to keep the occupants safe. Likewise, electronic thermostats are extremely well known in modern buildings and official notice is taken of both.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 2 above, and further in view of Clark.

Clark discloses connecting the cold water supply system directly to the fire sprinklers of a building and it would have been obvious to have modified the sprinkler feature of the Meckler prior art to reduce costs. Clarke also discloses electrically thermostatically actuated valves in Figures 2 and 3 (which show 2-way, valves 53 and 55) and Figure 4 (which shows three-way valves 57' and 59'). To have used electrical thermostats actuating valves in the prior art to Meckler would have been obvious to ease installation compared to pneumatic thermostats as well as to reduce costs.


Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to John Ford at telephone number (571) 272-4911.



John K. Ford
Primary Examiner